Difficult to defeat obesity: An 8D approach

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Abstract

This clinical practice aid describes an 8D approach to the evaluation of difficult-to-treat (or difficult to- defeat) obesity. It assesses various causes of resistance or refractoriness to weight loss strategies under two domains: Approach and Analysis (evaluation), as well as Management and Monitoring. Lack of meaningful Dialogue, incorrect Definition of Desired endpoints; missed Diagnosis of secondary obesity or characterization of Disease comorbidity/ Dysfunction; lack of Discipline, inappropriate Drug choice, dosage or administration; and Defective monitoring strategies or presence of "Dead weight" These causes, presented in a reader-friendly, pragmatic manner, make the concept relevant and useful for the obesity care provider.

Keywords: Obesity management, Resistant obesity, Refractory weight loss, GLP1RA, liraglutide, Overweight, Person centered care, Pharmacotherapy, Pseudo-resistance, Semaglutide.

Introduction

The epidemic of obesity poses not only a public health challenge, but a clinical one as well.[1] In spite of advances in our understanding of the etiopathology, natural history and management of the syndrome, success rates remain poor. Finding the reason for lack of control is necessary if one has to improve obesity care praxis. This brief communication describes a pragmatic approach to the evaluation of difficult-to-manage obesity. The eight Ds, as we term them, are structured in two groups of two subgroups each, in a reader-friendly manner (Table).

Table: The 8D approach to difficult-to-defeat obesity.

Approach
▪ Dialogue with patient
▪ Desired end point definition
Analysis (Evaluation)
▪ Diagnosis of etiology of obesity
▪ Disease dysfunction comorbidity limiting weight loss efforts
Management
▪ Discipline
▪ Drug choice, dosage, administration
Monitoring
▪ Defective monitoring strategy
▪ "Dead weight", e g, fluid, gas

Approach and Analysis

The foundation of successful obesity management lies in the clinical approach. An effective Dialogue between the person living with obesity, his/her care givers, and the health care team, is essential for successful outcomes.[2] Such a dialogue fosters sharing of information, knowledge, and decision-making. This allows understanding and definition of Desired (and realistic) end points (expected reduction in body weight or waist circumference), so as to prevent later treatment fatigue.

Analysis, or evaluation, of obesity must be done prior to start of treatment.[3] Diagnosis of etiology of obesity ensures that secondary causes such as hypothalamic, adrenal, thyroid or gonadal dysfunction are ruled out, or optimized.[4] Comorbid Disease and Dysfunction, such as cardiac, pulmonary, musculoskeletal or metabolic compromise, causing inability to adhere to suggested treatments, must be evaluated prior to onset of therapy.[5] Lack of attention to these aspects will lead to mismanagement and suboptimal outcomes.

Management and Monitoring

Management and monitoring strategies have an important role to play in obesity care. Discipline in lifestyle and behaviour, including dietary and physical activity behaviour, is mandatory for weight loss, lack of adherence to dietary and exercise-related advice and inability to inculcate behavioural modification, is a leading cause of difficulty in managing obesity.

Drug choice is an important determinant of therapeutic outcomes in any field of medicine and obesity is no exception. A person-centered choice of therapy is the key to success.[2] It would not make sense, for example, to prescribe to a person on a fat restricted diet, or phenteramine/topiramate to someone with limited appetite. Similarly, choice of surgical procedures should

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be based upon the current metabolic outcomes of an individual. The dosage of a particular drug, and the mode of intake/administration, must also be optimised if weight loss is not achieved.[5]

Defective monitoring methods, such as wrong techniques of measuring waist circumference or weight, using different machines to check weight or body fat percentage, or monitoring body weight at different times of the day, may create a sense of inadequacy of treatment.[6]

Yet another dimension of difficulty in weight management is what we term as "Dead weight". Excessive fluid retention or gaseous distension may appear as an increase in body weight, and create a sense of difficult-to defeat, obesity.[7]

Resistance and Pseudo-Resistance

Efforts have recently been made to define resistant and refractory obesity, based upon the inadequacy of $\geq$3, or $\leq$5 therapeutic interventions in achieving desired weight loss. Of the 8Ds that we mention, most fit the category of 'pseudo resistance' rather than true resistance.

A wrong approach to person-centered management, with improper Dialogue and/or Definition of desired outcomes will prevent even the best of medication from exerting its effects. Inaccurate Diagnosis of obesity etiology and characterisation of comorbid Disease can mimic pseudoresistance. Lack of Discipline is an exclusion criterion for the definition of resistant obesity. Defective monitoring and "Dead weight", too, are reasons that must be evaluated and excluded prior to labelling an individual as being therapy-resistant.

Drug choice, number and duration is an important consideration in the definition of resistant hypertension. Similarly, resistance to obesity care can be labelled only if an adequate trial of maximal efforts is tried prior to labelling resistant obesity including adequate use of drugs. For example, maximally tolerated glucagon-like peptide 1 receptor agonist (GLP1RA), which are the most effective anti-obesity agents, should be tried for >= 3 months prior to labelling a patient as having drug resistance. The most effective available GLP1RA, including liraglutide, parenteral semaglutide, and dual agonists (tirzepatide, GLP-1-Amylin analogues) are potent drugs for obesity management.[8]

Conclusion

Resistant weight is a commonly encountered in clinical practice while managing patients with obesity. Though referred as resistant many a times these could be driven by correctable factors leading to pseudo resistance. This paper provides a simple and easy to follow algorithm for clinicians to evaluate and manage individuals with resistant and pseudo resistant obesity.

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